



BILL RICHARDSON
GOVERNOR

CAFBO7
State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 476-6000
Fax (505) 476-6030
www.nmenv.state.nm.us



RON CURRY
SECRETARY

CINDY PADILLA
DEPUTY SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 18, 2007

Colonel Scott D. West
Commander 27th Fighter Wing
100 D.L. Ingram Boulevard, Ste 100
Cannon Air Force Base, New Mexico 88103

RE: NOTICE OF DISAPPROVAL (NOD)
CORRECTIVE MEASURES STUDY AT SWMUS 31, 48A, 77 AND 127,
CANNON AIR FORCE BASE, NEW MEXICO
EPA ID NO. NM7572124454
CAFBO-06-004

Dear Colonel West:

The New Mexico Environment Department (NMED) has reviewed the Department of Air Force's (the Permittee) response to the NMED's Notice of Deficiency dated March 27, 2007. NMED issued the Notice of Deficiency on December 21, 2006 for the *Corrective Measures Study at SWMUs 31, 48A, 77, and 127* (Report), dated June 2000. In the process of reviewing the Report, NMED has also reviewed the documents *Final Corrective Measure Implementation Work Plan for SWMU 31 (AGE Maintenance Pad)* and *SWMU 77 (Civil Engineering Container Storage Area)* dated January 1999, and *Work Plans: SWMUs 31, 48A, 77, and 127* dated November 1998. The Permittee's response to the NMED's comments is adequate except for the responses to Specific Comments 10, 13, 15, 18 and 19 and General Comment 3.

The Permittee, in responding to the Specific Comments 10 and 19, did not indicate that the review of more current toxicity data would be conducted; and there is no indication in the risk

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assessment that such a review was undertaken. NMED recognizes that the Report was based on the most current methodology available at the time. To ensure that the conclusions drawn from the 2000 analysis have not changed, the Permittee must conduct a thorough review of current toxicity data and United States Environmental Protection Agency (EPA) Region 6 media-specific screening levels (MSSLs) and discuss any differences between the 2000 and current methodologies.

In evaluating the Permittee's response to Specific Comments 10 and 19, NMED conducted a qualitative comparison of the screening values used in the Report to the most current soil screening levels (SSLs) published in NMED's *Technical Background Document for Development of Soil Screening Levels, Revision 4.0*, Hazardous Waste Bureau and Ground Water Quality Bureau, Voluntary Remediation Program, June 2006. SSLs are similar to MSSLs; however, SSLs are based on a target risk level of 1×10^{-5} for carcinogens while risk-based MSSLs are based on a target risk level of 1×10^{-6} . Based on this qualitative comparison of site data against the current NMED SSLs, NMED has determined that the conclusions presented in the Report will not change.

The Permittee, in responding to Specific Comments 13, 15, and 18 and General Comment 3, noted that volatile organic compounds (VOCs) were detected infrequently at low concentrations and that the vapor intrusion pathway was not considered to be significant. The Permittee did not provide any additional supporting information.

NMED utilized EPA's Johnson and Ettinger (J&E) vapor intrusion soil screening model, SL-Screen-Feb04.xls (www.epa.gov/oswer/riskassessment/airmodel/johnson_ettinger.htm), to determine if additional analysis of the vapor intrusion pathway is warranted. NMED ran the SL-Screen-Feb04.xls J&E model in back-calculation mode under the following assumptions:

- Maximum detected concentrations of the more toxic VOCs from Tables 5-5, 6-9 and 7-6 (note the highest maxima were identified in Table 7-6) were used;
- NMED target risk of 1×10^{-5} or a target hazard quotient of 1.0 was specified;
- Sandy loam along with leaky soil properties were specified; and
- Average flow rate into the building (Q_c) was left blank allowing the spreadsheet to calculate this value.

Based on this qualitative screening analysis, NMED determined that residual concentrations of VOCs at SWMU-127 may pose a potential vapor intrusion concern because the maximum concentrations of a subset of VOCs are above the target screening level concentration as follows (bold indicates the value exceeds the target concentration to be protective from indoor air exposures):

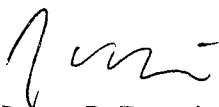
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<u>Site</u>	<u>Chemical</u>	<u>Maximum Concentration (mg/kg)</u>	<u>Target Concentration to be Protective from Indoor air exposures (mg/kg)</u>
SWMU-127	Ethylbenzene	54	25
	Benzene	3.8	0.021
	Tetrachloroethene	0.0029	0.021
	Toluene	82	5.8
	Xylenes	260	3

Because application of the currently accepted screening tool for the vapor intrusion pathway suggests the potential for vapor intrusion at some facility sites, the Permittee must perform an analysis of this exposure pathway. This analysis should include additional lines of evidence, other than frequency of detection, that establish the significance of the vapor intrusion pathway at facility sites. Examples of acceptable lines of evidence include but are not limited to, site-specific applications of the J&E model, descriptions of the distribution of the data to support the absence of a VOC source and collection of soil gas samples.

The Permittee must respond to the comments included in his letter and provide the requested additional information no later than October 16, 2007. NMED will reevaluate the report once the requested information is provided. Please contact Swarna Latha Vonteddu at (505) 476-6057 should you have any questions.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
C. Frischkorn, NMED HWB
S. Vonteddu, NMED HWB
Kristi Doll, CAFB
Ron Lancaster, CAFB
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